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Information Science and Technology Center Seminar

Jacek Becla
SLAC National Accelerator Center
Stanford University

"Real Life Data Intensive Applications - Challenges and Solutions"

Wednesday, September 15, 2010
3:00 - 4:00 PM
TA-3, Bldg. 1690, Room 102 (CNLS Conference Room)

Abstract: Very few have experienced the petascale reality, but soon everybody will. Because there are no clear solutions or standards, it is crucial to understand the current best practices. This talk will cover emerging trends that are practically essential for petascale computing such as pushing computation to data, distributing data horizontally, decentralization, uninterrupted operation under faults and full automation. It will discuss the challenges, today's practices and solutions applicable to data-intensive scientific analytics, with focus on real life examples from astronomy, high energy physics and others.

Biography: Jacek Becla has spent over ten years working with different scientific communities ranging from high energy physics, through astronomy to photon sciences, helping them use database technology for managing and analyzing their massive data sets. He was one of the key people that designed and built world's largest database for BaBar, and he now leads the design of the 100 petabyte database for the next generation astronomical survey — LSST. Prior to joining SLAC National Accelerator Laboratory / Stanford University back in 1997, he worked at CERN in Geneva, Switzerland on researching database technologies for the LHC experiment.

Jacek is very active in trying to bridge the gap between science and industry. He initiated a series of Extremely Large Databases (XLDB) workshops to stimulate collaboration between scientific and industrial users, database vendors and academia. He authored many papers, mainly on managing large scientific data sets. He served on several review committees for large database and IT projects. Jacek received a M.Sc. in Electronic Engineering from the University of Science and Technology in Krakow, Poland.

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